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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,709	01/22/2004	Takasi Furusawa	5702-00068	5208

7590 04/07/2005

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EXAMINER	
DUNN, DAVID R	

ART UNIT	PAPER NUMBER
3616	

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/762,709	FURUSAWA ET AL.	
	Examiner	Art Unit	
	David Dunn	3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 January 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 4-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 4-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/9/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *See Continuation Sheet*.

Continuation of Attachment(s) 6). Other: Translation (abstract) of DE 19612581.

DETAILED ACTION

This Office Action is responsive to the amendment filed January 18, 2005. Claims 2 and 3 have been canceled and new claims 4-6 have been added.

Information Disclosure Statement

1. The information disclosure statement filed March 9, 2005 is acknowledged. See enclosed IDS form.

Terminal Disclaimer

2. The terminal disclaimer does not comply with 37 CFR 1.321(b) and/or (c) because:

The application/patent being disclaimed has been improperly identified since the number used to identify the Patent being disclaimed is incorrect. The correct number is 6,685,223. [Applicant has refered to an application number; the Terminal Disclaimer must identify the Patent number.]

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 6 and 7 of U.S. Patent No. 6,685,223. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 6 and 7 of the patent include each of the limitations of claim 1 of the instant application.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Schwuchow (DE 19612581; cited in IDS).

Schwuchow discloses a method of inflating an airbag comprising: igniting a gas generant composition (9; see Figure 1) within a gas generator (8) to form combustion products; at least substantially filtering (10 - Brennkammerfilter = Combustion Chamber Filter); humidifying (12) the filtered combustion products to form humidified filtered combustion products (see also attached Abstract translation); and routing the humidified filtered combustion products into the airbag.

Regarding claim 6, the humidified filtered combustion products would inherently lubricate the airbag opening and a portion of an interior of the airbag, thereby reducing resistance of the airbag to inflation and correspondingly reducing the amount of pressure required to inflate the airbag.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwuchow alone.

Schwuchow is discussed above but does not clearly show the ratio of water to gas generant.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Schwuchow to have any desired ration of moles of water per mole of gas generant, such as 1.0 in order to provide an optimal amount of hydration to cool the combustion gases.

9. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lohr (3,711,115) in view of Kirchoff et al. (3,972,545).

Lohr discloses a method of inflating an airbag comprising the steps of igniting a gas generant (13, 15) to form combustion products (34); humidifying the combustion products to

form humidified combustion products (40; see column 7, lines 60-65; column 10, lines 14-24); and routing the products to the airbag (60)

Lohr fails to show filtering the combustion products.

Kirchoff teaches igniting a gas generant (18; column 2, lines 59-64) and filtering the combustion products (22, 24; column 3, lines 9-20) prior to other treatment (26, etc.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lohr with the teachings of Kirchoff to filter the combustion products in order to prevent clogging of the humidifying chamber.

Regarding claims 4 and 5, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Lohr and Kirchoff to have any desired ration of moles of water per mole of gas generant, such as 1.0 in order to provide an optimal amount of hydration to cool the combustion gases.

Regarding claim 6, the humidified filtered combustion products would inherently lubricate the airbag opening and a portion of an interior of the airbag, thereby reducing resistance of the airbag to inflation and correspondingly reducing the amount of pressure required to inflate the airbag.

Response to Arguments

10. Applicant's arguments filed 1/18/05 have been fully considered but they are not persuasive.

On pages 3 and 4, Applicant argues the rejection of the combination of Lohr and Kirchoff. Applicant argues that there is no suggestion or motivation to combine the references.

In response, it is submitted that the motivation to combine the teachings of the references would be found in the knowledge available to one of ordinary skill in the art. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA 1969). In this case, it is maintained that Kirchoff et al. would have suggested to one of ordinary skill in the art to provide a filter in the gas generator of Lohr to remove particulates in the gas. In addition, Kirchoff et al. would have suggested to add the filter before any treatment of the gas stream.

Applicant argues each of the references individually, noting that Lohr des not disclose filtration, and Kirchoff does not disclosure the addition of water. However, it is the sum total of the relevant teaching of the references which renders the modifications obvious; and it is maintained that Kirchoff would have suggested to one of ordinary skill in the art to modify the gas generator of Lohr to filter the gas before the gas was treated by the humidification.

Conclusion

11. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on March 9, 2005 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609(B)(2)(i). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Dunn whose telephone number is 703-305-0049. The examiner can normally be reached on Mon-Thur, alt. Fridays, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Dunn
Primary Examiner
Art Unit 3616

DERWENT-ACC-NO: 1997-481738

DERWENT-WEEK: 199814

TITLE: Gas and vapour generator especially for airbag - contains evaporable substance for gas cooling and vapour generation

INVENTOR: SCHWUCHOW, K

PATENT-ASSIGNEE: TEMIC BAYERN CHEM AIRBAG GMBH[TELE]

PRIORITY-DATA: 1996DE-1012581 (March 29, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 19612581 A1	October 2, 1997	N/A	008	B60R 021/26

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
DE 19612581A1	N/A	1996DE-1012581	March 29, 1996

INT-CL (IPC): B60R021/26, C06D005/00

ABSTRACTED-PUB-NO: DE 19612581A

BASIC-ABSTRACT:

The gas generator for an airbag system has a combustion chamber (8) containing a propellant (9) which, after ignition by an initiator (4,5), exits through outlet openings (14) in an outer combustion chamber wall (8a). An evaporable substance (12) is located in the combustion chamber (8). Preferably, the evaporable substance is a liquid, especially water, or a preferably pressurised gas or gas mixture. One or more filter chambers (16), containing a filter (17), are preferably provided in front of the generator outlet openings (18).

USE - Used especially in passive vehicle occupant safety systems, but also for inflatable sea or mountain rescue equipment such as life jackets, refuges and avalanche emergency airbags.

ADVANTAGE - The evaporable substance cools the combustion gas to improve filtering off of particles in the filter and to simplify the airbag construction, while maintaining the overall energy content for inflating the airbag.

CHOSEN-DRAWING: Dwg.1/3

TITLE-TERMS: GAS VAPOUR GENERATOR AIRBAG CONTAIN EVAPORATION SUBSTANCE GAS COOLING VAPOUR GENERATE

DERWENT-CLASS: K04 Q17

CPI-CODES: K04-C;

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C1997-153208
Non-CPI Secondary Accession Numbers: N1997-401556